IN THE CLAIMS

Please amend the claims to read as follows:

Listing of Claims

Claims 1-14 (Cancelled).

15. (New) An interrupt management apparatus, comprising:

an interrupt manager that, independently of an interrupt handler, holds an interrupt acceptance possibility state that permits an interrupt source to be enabled only when the interrupt source has a higher interrupt level than an interrupt source that is being processed;

an interrupt mask canceller that, while a first interrupt source is being processed, controls acceptance of a second interrupt source, independently of the interrupt handler; and

a multiple interrupt controller that, upon occurrence of an interrupt by the first interrupt source, saves an interrupt mask state in which a mask for the first interrupt source is set to disable said first interrupt source and the use of the interrupt acceptance possibility state, and that, according to said interrupt acceptance possibility state and a control state of said interrupt mask canceller, updates the saved interrupt mask state and sets an interrupt mask for the second interrupt source.

16. (New) The interrupt management apparatus according to claim 15, further comprising:

an initialization task manager that stores a call address of a task for performing task initialization processing independently of said interrupt handler;

an execution task controller that holds information on a task being executed;

an initialization task indicator that sets a task for which initialization processing is necessary; and

a task management controller that judges, based on processing of said execution task controller and said initialization task indicator, whether or not initialization processing is necessary for a suspended task when returning to said suspended task, and, when returning to a task for which initialization processing is necessary, executes a call of the task for performing initialization processing stored in said initialization task manager.

17. (New) The interrupt management apparatus according to claim 16 further comprising:

a task controller that determines a processing task that is subject to processing and stores a call address for each processing task;

a task manager having a dispatch processor that performs called processing task switching processing according to processing of the initialization task manager; and

a task suspension processor that calls said dispatch processor without performing restoration of information saved by a save processor for the task being executed at the time of interrupt generation, wherein:

when returning to the task for which the initialization processing is necessary, said task management controller calls said task suspension processor, and

when returning to a task for which initialization processing is not necessary, said task management controller calls said task restoration processor.

18.   (New)   The interrupt management apparatus according to claim 17, wherein said task manager comprises an initialization controller that performs task initialization control according to processing of said initialization task manager.

19.   (New)   An interrupt management method, comprising:

holding, independently of an interrupt handler, an interrupt acceptance possibility state that permits an interrupt source to be enabled only when the interrupt source has a higher interrupt level than an interrupt source that is being processed;

4

controlling acceptance of a second interrupt source, while a first interrupt source is being processed and independently of the interrupt handler; and

upon occurrence of an interrupt by the first interrupt source, saving an interrupt mask state in which a mask for the first interrupt source is set to disable said first interrupt source and use of the interrupt acceptance possibility state, and, according to said interrupt acceptance possibility state and an interrupt enabling control, updating the saved interrupt mask state and setting an interrupt mask for the second interrupt source.

20.   (New)   The interrupt management method according to claim 19, further comprising:

holding, independently of said interrupt handler, initialization task management information that includes: (a) a call address of a task for performing task initialization processing, (b) execution task information, and (c) initialization task indicating information for indicating whether initialization processing is necessary for a task; and

judging, based on said execution task control information and said initialization task indicating information, whether or not initialization processing is necessary for a suspended task when returning to said suspended task, and if returning to a

5

suspended task for which initialization processing is necessary, executing a call of the task, stored in said initialization task management information, for performing initialization processing.

21. (New) The interrupt management method according to claim 20, further comprising:

determining a processing task that is subject to processing;

performing called processing task switching processing according to the execution task information and the initialization task management information that contain a call address for each processing task;

performing said switching processing without performing restoration of saved information for a task being executed at the time of interrupt generation;

judging whether or not suspended task initialization processing is necessary, when returning to a suspended task, based on said execution task processing information and said initialization task management information;

performing said suspended task initialization processing if returning to the task for which initialization processing is necessary; and

performing task restoration processing if initialization processing is not necessary.

6

22. (New) The interrupt management method according to claim 21, further comprising:

performing task initialization control using said initialization task management information; and

performing said task switching processing using said execution task processing information.

23. (New) A recording medium on which is recorded a program that executes an interrupt management method, said interrupt management method comprising:

holding, independently of an interrupt handler, an interrupt acceptance possibility state that permits an interrupt source to be enabled only when the interrupt source has a higher interrupt level than an interrupt source that is being processed;

controlling acceptance of a second interrupt source, while a first interrupt source is being processed and independently of the interrupt handler; and

upon occurrence of an interrupt by the first interrupt source, saving an interrupt mask state in which a mask for the first interrupt source is set to disable said first interrupt source and use of the interrupt acceptance possibility state, and, according to said interrupt acceptance possibility state and an interrupt enabling control, updating the saved interrupt mask

state and setting an interrupt mask for the second interrupt source.

24. (New) An operating system provided with processing functions according to an interrupt management method, said interrupt management method comprising:

holding, independently of an interrupt handler, an interrupt acceptance possibility state that permits an interrupt source to be enabled only when the interrupt source has a higher interrupt level than an interrupt source that is being processed;

controlling acceptance of a second interrupt source, while a first interrupt source is being processed and independently of the interrupt handler; and

upon occurrence of an interrupt by the first interrupt source, saving an interrupt mask state in which a mask for the first interrupt source is set to disable said first interrupt source and use of the interrupt acceptance possibility state, and, according to said interrupt acceptance possibility state and an interrupt enabling control, updating the saved interrupt mask state and setting an interrupt mask for the second interrupt source.

25. (New) A signal processing processor provided with processing functions according to an interrupt management method, said interrupt management method comprising:

holding, independently of an interrupt handler, an interrupt acceptance possibility state that permits an interrupt source to be enabled only when the interrupt source has a higher interrupt level than an interrupt source that is being processed;

controlling acceptance of a second interrupt source, while a first interrupt source is being processed and independently of the interrupt handler; and

upon occurrence of an interrupt by the first interrupt source, saving an interrupt mask state in which a mask for the first interrupt source is set to disable said first interrupt source and use of the interrupt acceptance possibility state, and, according to said interrupt acceptance possibility state and an interrupt enabling control, updating the saved interrupt mask state and setting an interrupt mask for the second interrupt source.

26. (New) An image terminal apparatus provided with an interrupt management apparatus, said interrupt management apparatus comprising:

an interrupt manager that, independently of an interrupt handler, holds an interrupt acceptance possibility state that permits an interrupt source to be enabled only when the interrupt source has a higher interrupt level than an interrupt source that is being processed;

an interrupt mask canceller that, while a first interrupt source is being processed, controls acceptance of a second interrupt source, independently of the interrupt handler; and

a multiple interrupt controller that, upon occurrence of an interrupt by the first interrupt source, saves an interrupt mask state in which a mask for the first interrupt source is set to disable said first interrupt source and the use of the interrupt acceptance possibility state, and that, according to said interrupt acceptance possibility state and a control state of said interrupt mask canceller, updates the saved interrupt mask state and sets an interrupt mask for the second interrupt source.

27. (New) A mobile communication system provided with an image terminal apparatus, said image terminal apparatus having an interrupt management apparatus comprising:

an interrupt manager that, independently of an interrupt handler, holds an interrupt acceptance possibility state that permits an interrupt source to be enabled only when the interrupt source has a higher interrupt level than an interrupt source that is being processed;

an interrupt mask canceller that, while a first interrupt source is being processed, controls acceptance of a second interrupt source, independently of the interrupt handler; and

a multiple interrupt controller that, upon occurrence of an interrupt by the first interrupt source, saves an interrupt mask state in which a mask for the first interrupt source is set to disable said first interrupt source and the use of the interrupt acceptance possibility state, and that, according to said interrupt acceptance possibility state and a control state of said interrupt mask canceller, updates the saved interrupt mask state and sets an interrupt mask for the second interrupt source.